

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 98-005

NPDES PERMIT NO. CA0038440

WASTE DISCHARGE REQUIREMENTS FOR:

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
WET WEATHER OVERFLOW FACILITIES  
ALAMEDA AND CONTRA COSTA COUNTIES

The California Regional Water Quality Control Board, San Francisco Bay Region (the Board) finds that:

**PURPOSE OF ORDER**

1. East Bay Municipal Utility District, Special District No. 1 (the discharger) submitted a National Pollutant Discharge Elimination System (NPDES) permit application dated February 10, 1997, for revision of NPDES No. CA0038440.

**ACTIVE PERMIT DESCRIPTION**

2. The discharger is currently subject to two NPDES permits, one for discharges from wet weather overflow facilities (Order No. 92-97, adopted on August 19, 1992, as NPDES permit No. CA0038440) and the other for year-round discharge from its main wastewater treatment plant (Order No. 94-127, adopted on September 21, 1994, as NPDES permit No. CA0037702). The discharger is also subject to a Cease and Desist Order (CDO) No. 92-96 which requires elimination of overflows from its interceptor system and construction of wet-weather facilities.

**DISCHARGE DESCRIPTION**

3. The discharger treats municipal wastewater from seven local agencies in the East Bay: the cities of Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont, as well as Stege Sanitary District (serving El Cerrito, Kensington, and part of Richmond). The seven agencies run their own sanitary sewer systems, which deliver sewage to the discharger's 23-mile long interceptor. The interceptor delivers wastewater to main treatment plant in Oakland. Year-round discharge from the treatment plant is regulated under a separate NPDES Permit. The discharger's interceptor system includes seven overflow structures. Discharges from these structures may occur intermittently as a result of infiltration/inflow to the sanitary sewer system during winter storm events with a greater frequency than a 5-year storm. The seven locations are: Point Isabel, Cerrito Creek, Temescal Creek, Oakland Inner

Harbor (Alice Street), Oakland Inner Harbor (Webster Street), Elmhurst Creek, and San Leandro Creek.

4. The discharger was required by CDO Order No. 92-96 to complete the construction of : a) main wastewater treatment plant expansion by April 1993; b) Point Isabel wet-weather treatment facility by July 1993; c) San Antonio Creek and North Interceptor wet-weather treatment facilities by December 1994; d) Pump Station C by March 1996; e) Pump Station B by July 1996; and, f) Coast Guard Island wet-weather treatment facility by April 1998. Current status is as follows:

a) Main Wastewater Treatment Plant Expansion

The Main Wastewater Treatment Plant expansion was completed in May 1993. It increased influent pumping capacity to 425 mgd and included an 11 million gallon discharge basin.

b) Point Isabel Wet-Weather Treatment Facility

Point Isabel wet-weather treatment facility was constructed and it has a design capacity to treat 100 million gallons per day (mgd) of wastewater diverted from the North Interceptor during a storm event. The treatment facility consists of coarse screens, bar screens, grit chambers, and sedimentation/disinfection basins. Screening are disposed of by landfill burial at an authorized disposal site. Grit and sludge are returned to the interceptor. The treated wastewater discharges from the outfall into San Francisco Bay, a water of the State and United States, through a submerged diffuser about 300 feet offshore at depth of 8 feet below mean lower low water (Latitude 37 deg., 53 min., 43 sec.; Longitude 122 deg., 19 min., 24 Sec.).

c) San Antonio Creek Wet-Weather Treatment Facility

San Antonio Creek wet-weather treatment facility was constructed and it has a design capacity to treat 51 mgd of wastewater diverted from the middle portion of the South Interceptor. The treatment facility consists of grit removal, fine screens, and disinfection. Both screenings and grit are returned to the interceptor. The treated wastewater discharges from outfall into Oakland Inner Harbor, a water of the State and United States (Latitude 37 deg., 47 min., 30 sec.; Longitude 122 deg., 15 min., 44 Sec.).

d) North Interceptor Wet-Weather Facilities

The North Interceptor wet weather facilities were completed in December 1994. They included a 24 mgd pump station and 2 miles of forcemain and gravity pipeline.

e) Pump Station C

Pump Station C was completed in August 1997. It has design capacity of 8.2 mgd and wet weather storage capacity of 1 million gallons.

f) Pump Station B

The construction of Pump Station B has not been completed. Pump Station B will be completed in November 1998. Reasons for the delay include odor control studies and design coordination issues with the City of Alameda.

g) Coast Guard Island Wet-Weather Treatment Facility

The discharger has conducted a study (*Technical Memorandum No.3, "Reassessment of Coast Guard Island Wet Weather Treatment Facility", November 1995*) using dynamic hydraulic flow routing model to assess the need for the Coast Guard wet-weather treatment plant. The study found that originally, the discharger conservatively assumed that the peak flows during the design storm will last long enough to coincide and for steady-state conditions to occur throughout its facilities. After using dynamic hydraulic flow routing model, it was found that flow routing will attenuate peak flows to some extent. The study recommended that the discharger eliminate this facility from its wet weather program. The study further recommended that the discharger continue to refine the wet weather facilities operation control/management plan using the hydraulic model, and by incorporating actual wet weather operating experience.

The discharger's wet weather facilities are already capable of handling all the flow that can be delivered to it by the community collection systems. The communities' sewage collection system will not be able to deliver the full design flow to the discharger's wet weather facilities until 2015. By 2015, the communities' sewer rehabilitation programs are expected to reduce the design flows to match the capacities of both their collection systems and the discharger's wet weather facilities. The discharger feels that if all the remaining community sewer correction projects and remaining wet weather facilities are completed and operated as planned, Coast Guard wet-weather treatment facility may not be required to eliminate wet weather overflows from the design storm. Therefore, it has requested a change in the compliance date for the Coast Guard Island wet-weather treatment facility with a provision to reevaluate this project in the year 2002.

h) Oakport Wet-Weather Treatment Facility

Oakport wet-weather treatment facility was constructed and it has a design capacity to treat 158 mgd of wastewater diverted from the southern portion of the South Interceptor. The treatment facility consists of coarse screens and sedimentation/disinfection basins. Both screening and sludge are returned to the interceptor. The treated wastewater discharges from outfall into East Creek Slough, a water of the State and United States (Latitude 37 deg., 45 min., 39 sec.; Longitude 122 deg., 12 min., 52 Sec.).

5. The wet-weather facilities project has increased the interceptor's peak capacity from 290 to 760 mgd. It reduced all untreated wastewater overflows along the District-owned North Interceptor, Adeline Interceptor, south Interceptor, south San Leandro Bay and San Leandro Creek. It has eliminated untreated sewage overflows at all seven of the overflow sites generated by a 5-year storm event. The wet weather facilities remove floatable material and meet Basin Plan objectives for bacteria in the effluent. The interceptor connections to all seven overflow sites still exist.
6. The discharger's wet weather project meets Basin Plan objectives for bacteria and floatable material and complies with the Basin Plan's conceptual approach for wet weather overflows.

## **BENEFICIAL USES**

7. The beneficial uses of San Francisco Bay and contiguous water bodies are:
  - o Industrial process supply
  - o Industrial service supply
  - o Navigation
  - o Water contact recreation
  - o Non-contact water recreation
  - o Commercial and sport fishing
  - o Wildlife habitat
  - o Preservation of rare and endangered species
  - o Fish migration
  - o Fish spawning
  - o Shellfish harvesting
  - o Estuarine habitat

## **APPLICABLE PLANS, POLICIES, AND REGULATIONS**

8. The Board adopted a revised Water Quality Control Plan for the San Francisco Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board (State Board) and the Office Administrative Law on July 20 and November 13, respectively of 1995. A summary of regulatory provisions is contained in Title 23 of the California Code of Regulations at Section 3912. The Basin Plan identifies beneficial uses and water quality objectives for waters of the State, including surface and ground waters, as well as effluent limitations and discharge prohibitions intended to protect beneficial uses. It prohibits discharges that do not receive minimum initial dilution of 10:1 unless certain conditions are satisfied. It also sets a wet weather overflow policy to control such overflows as a function of the beneficial uses to be protected in the vicinity of the overflows.

9. USEPA Region IX has determined that secondary treatment effluent limits do not apply to dischargers from the seven overflow structures. This determination is contained in a June 18, 1986 letter from Region IX staff and is based on the conclusion that these structures are not part of a publicly-owned treatment works (POTW) as defined by USEPA regulation.
10. In the absence of secondary treatment effluent limits, the Board must determine technology-based limits for conventional pollutants (Best Conventional Pollution Control Technology, or BCT) and other pollutants (Best Available Technology Economically Achievable, or BAT) in the discharge. This is a case-by-case determination, because there are no USEPA guidelines for wet weather overflows or any similar discharges. For most pollutants in the discharge, BCT or BAT either cannot be determined or mean "no treatment". The two exceptions are disinfection (high rate chlorination to remove bacteria) and screening (to remove floatable material). Water quality objectives in the Basin Plan are equally or more stringent than technology-based limits for these two pollutants. In particular, the Basin Plan wet weather overflow policy mandates more thorough disinfection for discharges in the vicinity of shellfish beds, as is the case at Oakport and Point Isabel.
11. Discharges at the Point Isabel and Oakport facilities do not achieve a minimum initial dilution of 10:1. The Basin Plan allows exception to this 10:1 requirement if (1) meeting it would place an inordinate burden on the discharger relative to the beneficial uses protected and (2) an equivalent level of environmental protection can be achieved by an alternate means. The minimum cost to achieve 10:1 dilution at these two facilities would have been in excess of \$60-80 million. Essentially no environmental benefit would result by providing 10:1 dilution, since the discharges are disinfected and since they occur only during periods of significant urban runoff, itself a significant contributor of coliform bacteria. An exception to the 10:1 requirement is therefore warranted, provided that the facilities required herein are designed, built, and operated to assure high reliability.
12. The discharger has proposed an environmental enhancement project that would provide environmental benefits to the San Francisco Bay. The proposed project will cost approximately \$100,000. The project consists of a program which involves public outreach and education on the use of the recycled water with an emphasis on end customer needs, and will include three main components: a) school education component which will include educational material that would be used to inform and educate children in elementary and high schools on recycled water, b) tours of recycled water facilities and demonstration gardens which will highlight the extensive treatment of recycled water and its appropriateness for irrigation uses, and c) training classes for people involved in operating and maintaining irrigation systems that use recycled water.

## **OTHER FINDINGS**

13. The discharger has an approved USEPA Local Pretreatment Program for its main treatment plant. This program, while aimed at year-round source control, will also reduce the concentrations of trace metals and toxic organic compounds in wet weather discharges from the interceptor system.

14. Federal Regulations for storm water discharges were promulgated by the USEPA on November 16, 1990. The regulations [40 CFR Parts 122, 123 and 124] require specific categories of industrial activities which discharge storm water associated with industrial activity (industrial storm water) to obtain a NPDES permit and to implement BAT and BCT to control pollutants in industrial storm water discharges.
15. The State Board has required industrial facilities to obtain coverage under the SWRCB General Permit or apply for an individual permit by October, 1992. The discharger has requested the Regional Board to address all storm water flows from wastewater treatment facility process areas in this permit. These storm water flows are directed to the plant headworks and are treated along with the wastewater to comply with the requirements specified in the existing NPDES permit. Therefore, a separate NPDES permit to regulate storm water discharges from the wastewater treatment facilities is not necessary.
16. The discharger is hereby notified that on February 19, 1993, USEPA issued the final rule for the use and disposal of sewage sludge (40 CFR 503). This rule requires that producers of sewage sludge meet certain reporting, handling, and disposal requirements. The dischargers are advised to contact USEPA regarding compliance with 40 CFR 503.
17. An **Operations and Maintenance Manual** is maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, recommended operation strategies, process control monitoring, and maintenance activities. In order to remain a useful and relevant document, the manual shall be kept updated to reflect significant changes in treatment facility equipment and operation practices.

#### **CEQA AND PUBLIC NOTICE OF ACTION**

18. This order serves as an NPDES Permit, revision of which is exempt from the provisions of Chapter 3 (commencing with Section 21100 of Division 13) of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
19. The discharger and interested agencies and persons have been notified of the Board's intent to revise the NPDES permit for this discharge and have been provided an opportunity to submit their written comments and appear at the public hearing.
20. The Board at a properly-noticed public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder, shall comply with the following:

A. Discharge Prohibitions

1. Discharge of dry-weather waste from the wet-weather overflow structures or proposed wet-weather treatment facilities is prohibited.
2. Discharge to waters of the State is prohibited except as defined below. The discharger shall design and construct wet-weather treatment facilities to achieve a long term average of ten discharges per year per discharge location for a total of 100 million gallons per year. These long term design criteria will not be used to determine compliance or non-compliance with this prohibition. The discharger shall prepare a wet weather facilities operation plan which is consistent with the following objectives:
  - a. Maximize the volume of wastewater delivered to the main wastewater treatment plan, consistent with that plant's hydraulic and treatment capacities, and
  - b. Assure that all wastewater entering the discharger's interceptor receives treatment prior to discharge (at least floatables removal and disinfection/dechlorination).

This operation plan must be submitted to the Board prior to start-up of the wet weather treatment facilities. The plan will be subject to the Executive Officer's review and approval. The discharger's compliance with the operation plan will constitute compliance with this prohibition. Conversely, failure to comply with the plan will connote non-compliance with this prohibition. The operation plan may be part of the discharger's Operation and Maintenance Manual (see provisions).

B. Effluent Limitations

1. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.
2. Total chlorine residual in the discharge shall not exceed a concentration of 0.0 mg/l (instantaneous maximum).
3. Total Coliform Limitation
  - a. For discharges to Oakland Inner Harbor from the San Antonio Creek and Coast Guard Island facilities, the moving median value for the MPN of total coliform in any five consecutive samples<sup>1</sup> shall not exceed 1,000 coliform organisms per 100 ml. Any single sample shall not exceed 10,000 coliform organisms per 100 ml.
  - b. For discharges from the Point Isabel and Oakport facilities, the moving median value for the MPN of total coliform in any five consecutive samples<sup>1</sup> shall not exceed 240 coliform organisms per 100 ml. Any single sample shall not exceed 10,000 coliform organisms per 100 ml.

Notes: (1) Because the discharge is intermittent, 5-sample medians shall be calculated only from samples taken from the same discharge event. A new discharge event occurs if the discharge is interrupted for four or more hours.

c. Receiving Water Limitations

1. The discharger of waste shall not cause the following conditions to exist in waters of the State at any place:

- a. Floating material obviously of sewage origin;
- b. Floating, suspended, or deposited macroscopic particulate matter or foam;
- c. Bottom deposits or aquatic growths;
- d. Alteration of temperature, turbidity, or apparent color beyond natural background levels;
- e. Visible, floating, suspended, or deposited oil or other products of petroleum origin; or,
- f. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption, either at levels created in the receiving waters or as a result on biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State within one foot of the water surface:

- |                       |  |
|-----------------------|--|
| a. Dissolved oxygen   | 5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentrations than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen. |
| b. Dissolved sulfide  | 0.1 mg/l   |
| c. pH                 | Variation from natural ambient pH by more than 0.5 pH units  |
| d. Un-ionized ammonia | 0.025 mg/l as N (annual median)<br>0.16 mg/l as N (maximum)  |

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order accordingly.

D. Provisions

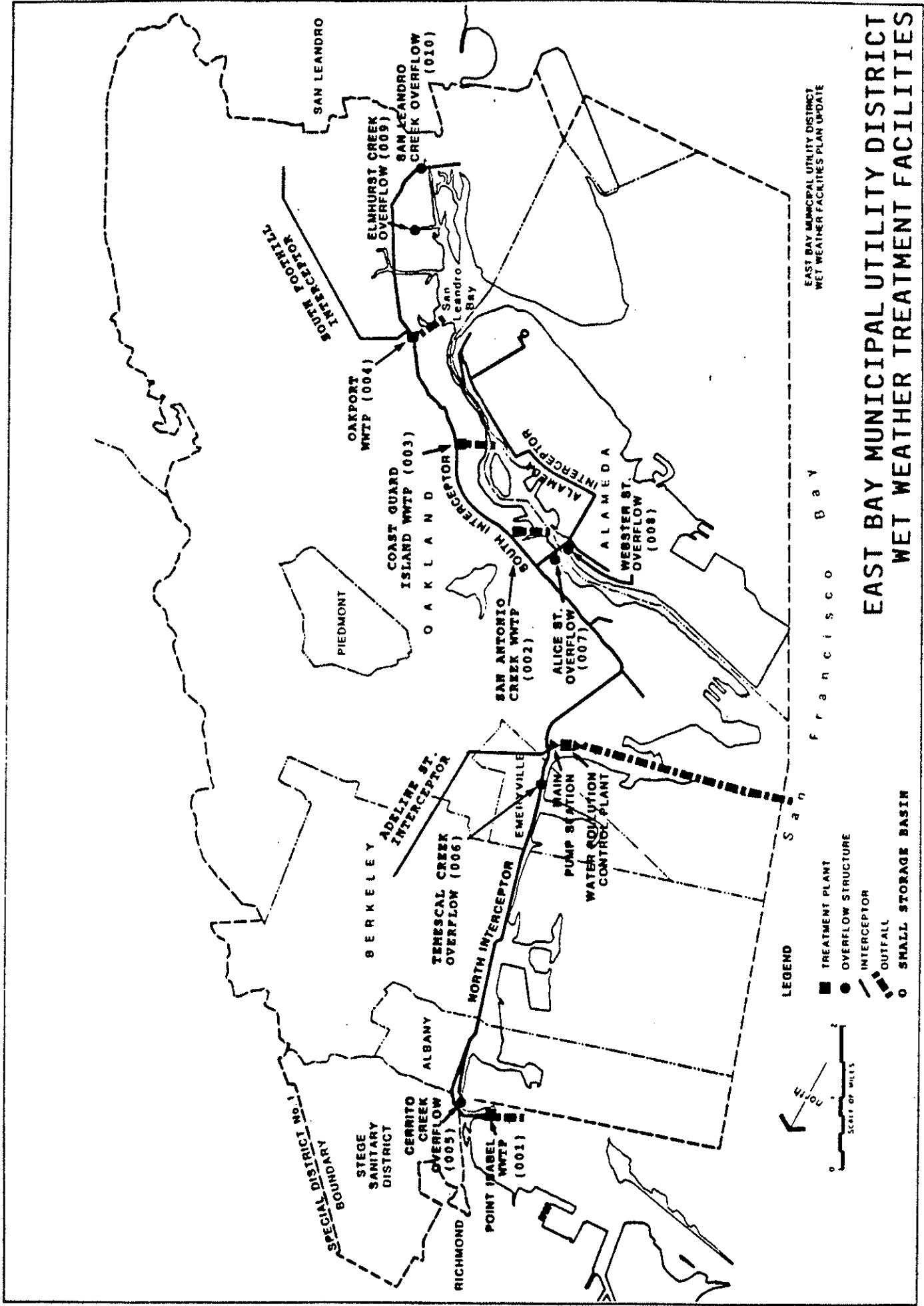
1. The requirements prescribed by this Order supersede those prescribed by Order Nos. 92-96 and 92-97. Order Nos. 92-96 and 92-97 are hereby rescinded.
2. The discharger shall achieve full compliance with Prohibitions A.1. and A.2. of this Order by completing the proposed wet-weather treatment facilities in accordance with the following time schedule:

<u>Task</u>	<u>Completion Date</u>
a. Complete construction of the Pump Station B	July 1999
b. Reevaluate the need for the Coast Guard Wet Weather Treatment Facility <sup>1</sup>	January 2002

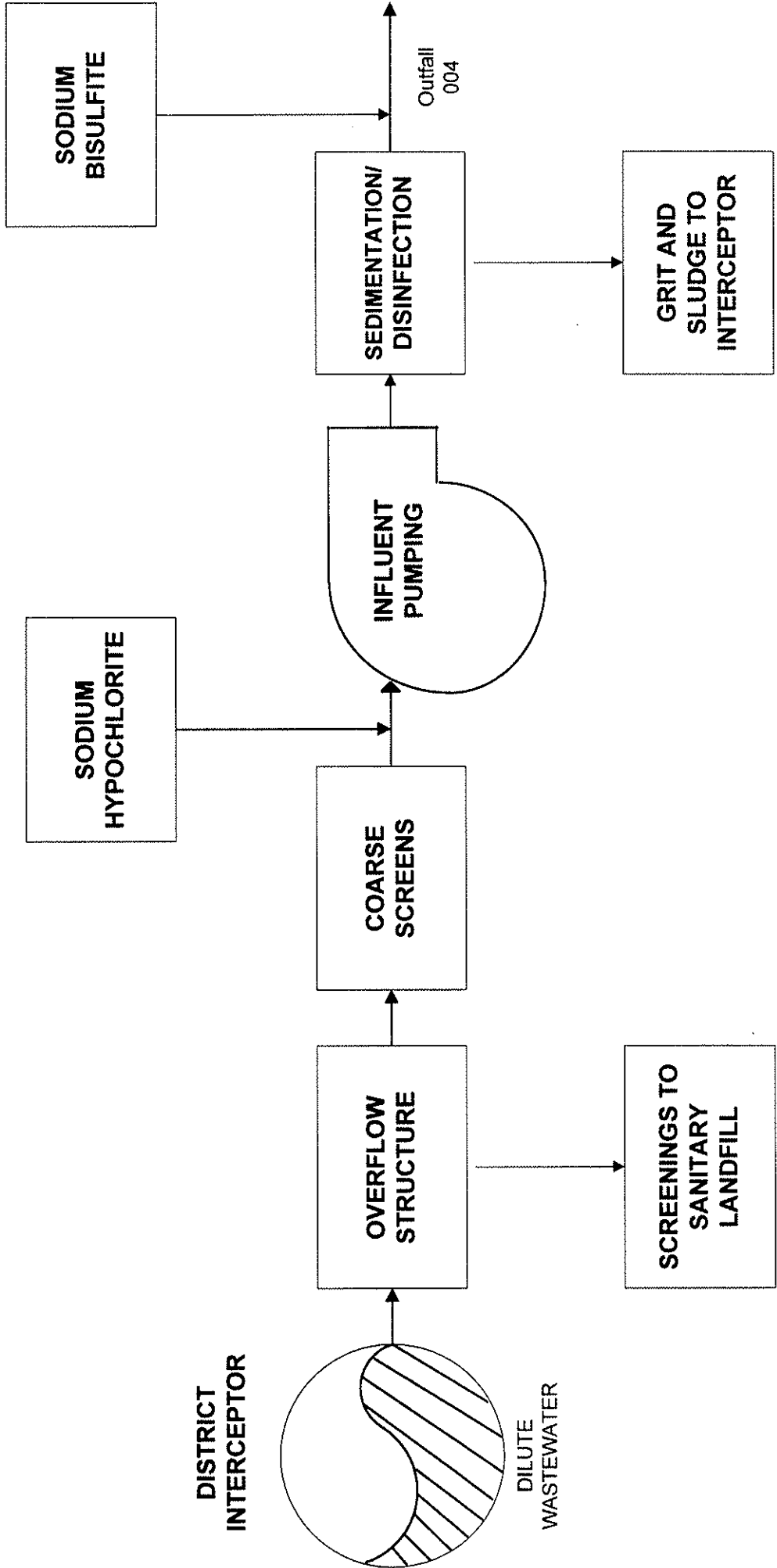
NOTES: Submit a report which: a) discusses refinement of the wet-weather facilities control rules using a combination of hydraulic model and wet-weather facilities operation experience; b) discusses whether the wet-weather facilities will be able to reliably handle and treat wet weather flows without Coast Guard Island Wet-Weather Facility; and, c) proposes a revised Wet Weather Facilities Program for approval by the Executive Officer.

3. The discharger shall comply with all sections of this Order immediately upon adoption. The environmental enhancement project described in the Findings shall be completed no later than the expiration date of this permit. A report, acceptable to the Executive Officer, shall be submitted prior to the expiration date of this permit, that describes the completed environmental enhancement project.
4. The discharger shall comply with the attached Self-Monitoring Program. The Executive Officer may make minor amendments to it pursuant to federal regulations (40 CFR 122.63).
5. The discharger shall comply with all items in the attached "Standard Provisions, Reporting Requirements, and Definitions" dated August 1993, with the exception of items A.12., D.2., and E.5.

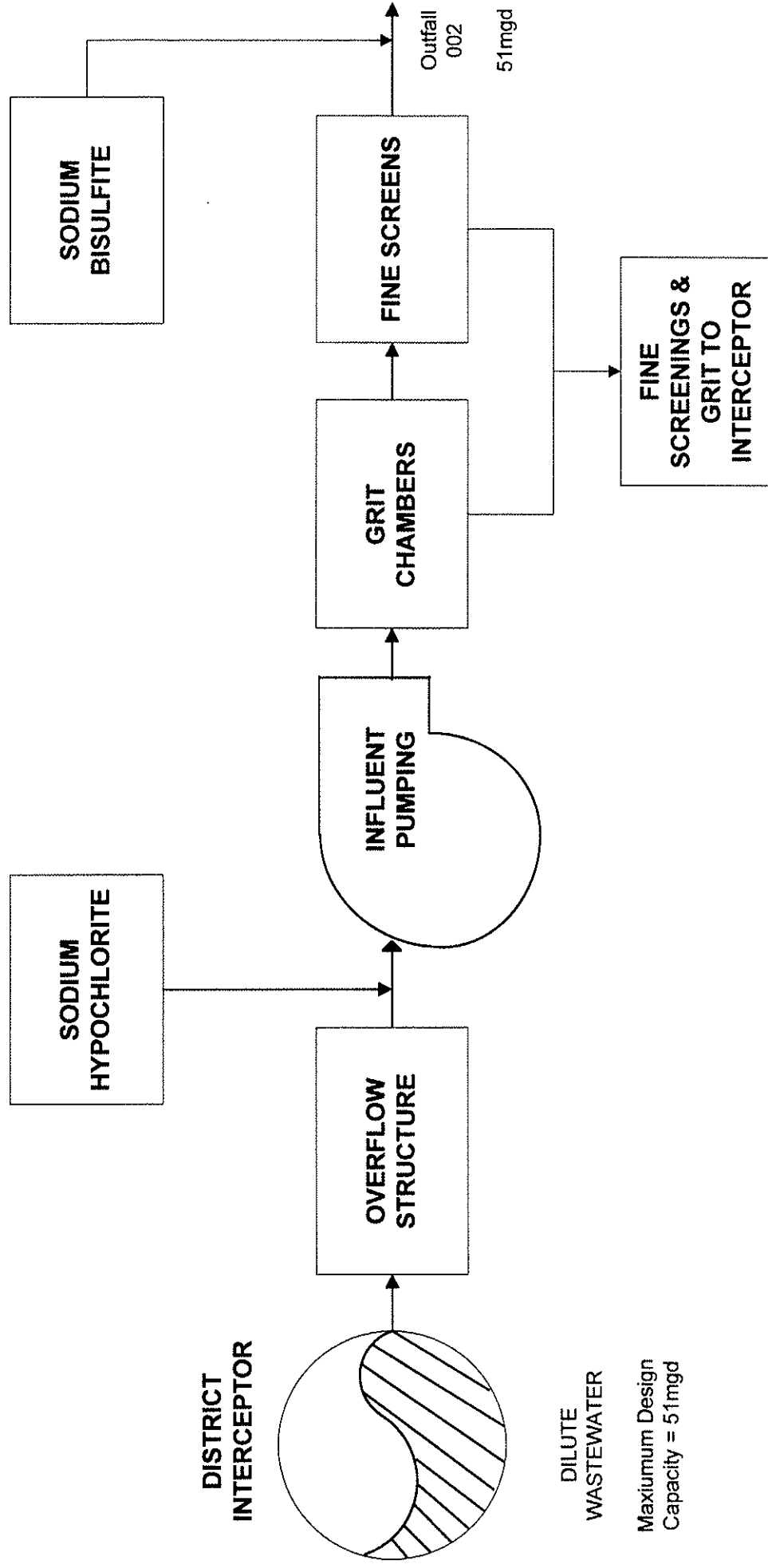
Location Map: EBMUD interceptor overflow structures and proposed wet-weather treatment plants



OAKPORT WET WEATHER TREATMENT PLANT  
DISCHARGE No. 004  
Treatment Process Schematic



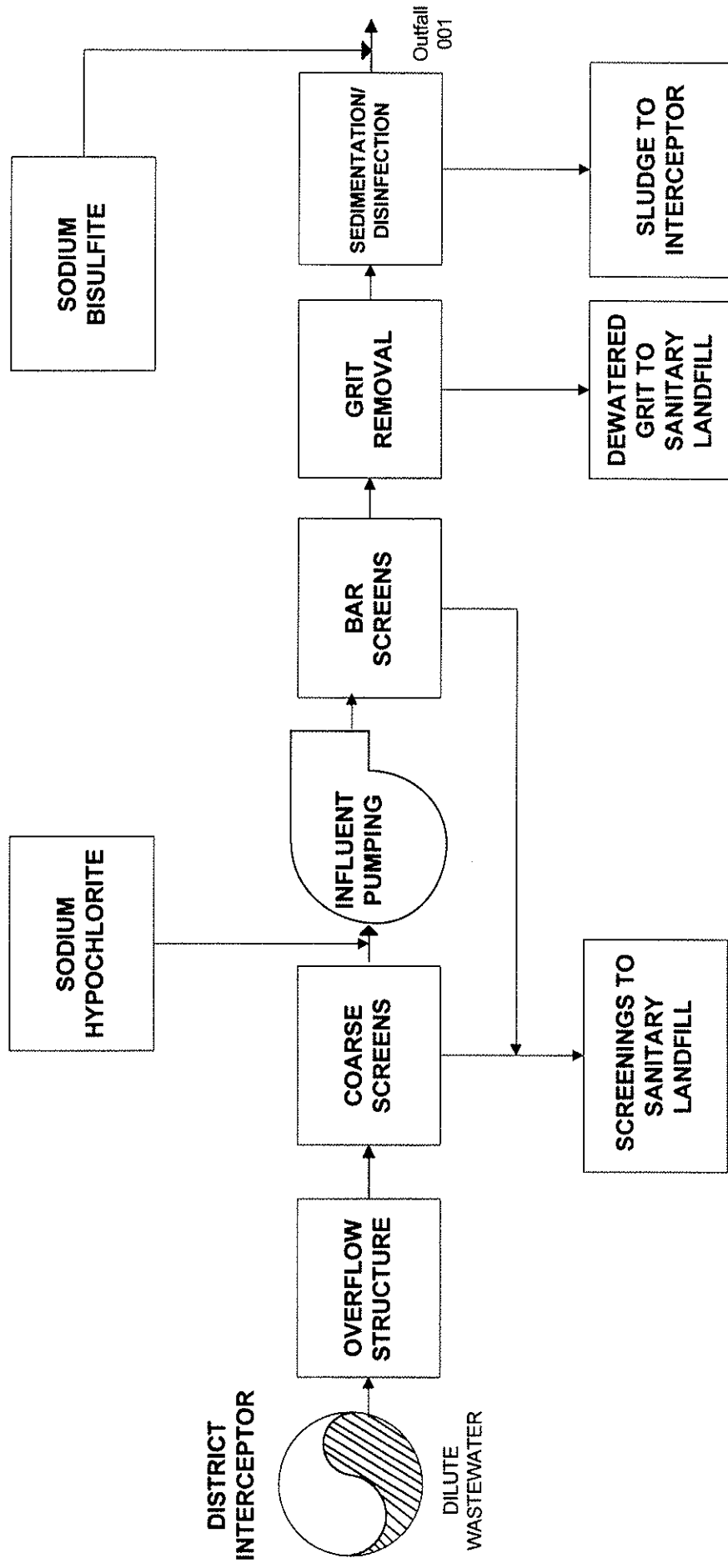
# **SAN ANTONIO CREEK WET WEATHER TREATMENT PLANT** **DISCHARGE No. 002** **Treatment Process Schematic**



12.55 MG discharged over 7.5 hours at a maximum flow rate of 51 mgd.


Frequency of operation is once every 2 to 5 years.

# POINT ISABEL WET WEATHER TREATMENT PLANT DISCHARGE No. 001 Treatment Process Schematic



6. The discharger shall prepare an Operation and Maintenance Manual for the proposed wet-weather treatment facilities, to be submitted to the Board prior to putting the facilities into operation. The discharger shall review and update its Operation and Maintenance Manual annually or, in the event of significant facility or process changes, shortly after such changes occur. Annual revisions or a letter stating that no revisions are needed, shall be submitted to the Board by April 15 of each year.
7. The discharger shall submit a report on project reliability prior to putting the proposed wet-weather facilities into operation. The report shall demonstrate how facility design and operation will assure a high degree of treatment reliability. Such reliability is necessary to justify a discharge having less than 10:1 initial dilution. The portion pertaining to operation reliability may be included in the Operation and Maintenance Manual.
8. This Order expires on January 21, 2003. The discharger must file a report of waste discharge in accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations not later than 180 days before this expiration date as application for reissuance of waste discharge requirements.
9. This Order shall serve as a National Pollutant Discharge Elimination System (NPDES) Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after the date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on January 21, 1998.

  
LORETTA K. BARSAMIAN  
Executive Officer

Attachments:

1. Project map
2. Wet-weather treatment facilities
3. Standard Provisions, Reporting Requirements, and Definitions (August 1993)
4. Self-Monitoring Program (Parts A and B)

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

EAST BAY MUNICIPAL UTILITY DISTRICT  
SPECIAL DISTRICT NO. 1  
WET WEATHER FACILITIES  
ALAMEDA AND CONTRA COSTA COUNTIES

NPDES PERMIT NO. CA 0038440  
ORDER NO. 98-005

CONSISTING OF

PART A AND PART B

## PART B

### MODIFICATION OF PART A (August 1993)

Items C.1 through D.4, and F.1 of Part A will not apply to this self-monitoring program.

### SELF MONITORING AT EXISTING OVERFLOW STRUCTURES

The discharger shall monitor the frequency, duration, and (if possible) the volume of discharge from each of the seven existing overflow structures. Monthly reports should also include information on rainfall in the discharger's service area (during and prior to overflows) and on influent flow to the discharger's main treatment plant (average and maximum daily flow on overflow days). This monitoring can be discontinued once the existing overflow structures are taken out of service. However, the monitoring should resume if dilute sewage is discharged through the existing overflow structures as a result of a severe rain storm which exceed the wet-weather treatment capacity.

### SELF MONITORING AT PROPOSED TREATMENT FACILITIES

#### **A. Influent Sampling**

An influent sampling station shall be established at each of the treatment facilities. The station shall be located at a point where all waste tributary to the facility is present and preceding any treatment unit or recycle flow. The discharger shall take influent samples at the same time as effluent samples (within an hour) at each facility and according to the following schedule:

<u>Parameter</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Suspended Solids (mg/l)	C-X <sup>1</sup> (X<24)	No more than 1/month

Notes:

1. Composite sample (1/hour) over X hours (the duration of the discharge), not to exceed 24 hours.

#### **B. Effluent Sampling**

An effluent sampling station shall be established at each treatment facility. The station shall be located at a point prior to discharge where all waste tributary to the outfall is present and all treatment is completed.

Effluent sampling will be required only during discharge events, which may last from less than an hour to over a day. Composite sampling shall commence within 1 hour after a discharge begins and continue until the discharge ceases, but not to exceed 24 hours. For monitoring purposes, a discharge ceases if there is no effluent flow from the facility for a period of at least 4 hours. Any effluent flow after 4 hours would constitute a new discharge.

The discharger shall report the date and time when discharges start and stop and the duration of each discharge. The discharger shall also report recent rainfall in its service area (during and prior to discharge) and influent flow to the discharger's main treatment plant (average and maximum daily flow on discharge days).

The discharger shall take effluent samples according to the schedule in Table 1.

Table 1: Effluent Monitoring Schedule

<u>Parameter</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
Flow (mgd)	Continuous	Continuous during discharge
BOD	C-X <sup>1</sup> (X<24)	1/discharge <sup>2</sup>
Suspended Solids (mg/l)	C-X	1/discharge
Oil and Grease (mg/l)	Grab <sup>3</sup>	1/discharge
pH	Grab	1/discharge
Dissolved Oxygen (mg/l and % saturation)	Grab	1/discharge
Temperature (°C)	Grab	1/discharge
Total and Fecal Coliform (MPN/100 ml)	Grab	1/hour during discharge <sup>4</sup>
Chlorine residual (mg/l)	Continuous <sup>5</sup>	Continuous or 1/hour during discharge
Trace metals <sup>6</sup> (mg/l)	Grab <sup>1</sup>	1/hour during discharge
Phenolic compounds (mg/l)	Grab <sup>1</sup>	1/hour during discharge
PAH <sup>7</sup> (mg/l)	Grab <sup>1</sup>	1/hour during discharge

Notes:

1. At least once rainfall year (October 1 to September 30) the discharger shall take at least one sample per hour over X hours (the duration of the discharge), not exceed 24 hours. Composites(s) of these samples shall be prepared before analysis.
2. One composite sample per discharge event, not to exceed 2 composite samples per week.
3. May use composite sample if Standard Methods used to assure accurate results.
4. Because of the difficulty of analyzing coliform samples from an intermittent discharge within the maximum holding period, the following selective sampling program shall be used. At least once rainfall year (October 1 to September 30) the discharger shall perform a detailed analysis of disinfection results during discharge event. Total and fecal coliform samples shall be taken at least once per hour for the full duration of the discharge. In addition, the discharger shall take at least one grab sample for any discharge. The discharger shall also provide a continuous recording of chlorine dosage (mg/l) and detention time in the contact chamber for all discharges.
5. Chlorine residual analyzers shall be calibrated against grab samples as frequently as necessary to maintain accurate monitoring.
6. Measure concentrations of ten metals: arsenic, cadmium, chromium (hexavalent and total), copper, lead, mercury, nickel, silver, zinc, and cyanide.
7. Polynuclear aromatic hydrocarbons, as identified in USEPA Method 610.

### **C. Receiving Water Monitoring**

The discharger shall propose specific locations for receiving water monitoring in the vicinity of each of the treatment facilities. This proposal shall be received by the Board at least 60 prior to the discharger putting the respective facilities into service. The proposal shall be subject to approval by the Executive Officer.

The discharger shall conduct such monitoring twice per rainfall year (October 1 through September 30). Fewer efforts may be made under the following circumstances: (1) treatment facility not in service yet, (2) fewer than 2 discharges for the year at the facility, or (3) discharger unable to monitor during the prescribed period (below) due to safety concerns (e.g. inclement weather or darkness).

Receiving water monitoring shall be performed either during a discharge or within eight hours after the discharge cases. For each monitoring effort, the discharger shall record the following:

- o Date and time of monitoring
- o Hours since the discharge ceased (if applicable)
- o Hours since rainfall ended (if applicable)
- o Stage of the tide
- o Air temperature
- o Wind direction and velocity

- o Rainfall (inches) for last 5 days
- o Presence of floating or suspended materials of waste origin (if present, note possible source and affected area)
- o Evidence of beneficial water uses (e.g. presence of water-associated wildlife, fisherman, shellfish harvesting, boaters, water-skiers, and other water-contact or water-oriented recreation)

The discharger shall take receiving water samples according to the following schedule:

<u>Parameter</u>	<u>Sample Type</u>	<u>Sample Frequency</u>
pH	Grab <sup>1</sup>	1/station
Dissolved Oxygen (mg/l and % saturation)	Grab <sup>1</sup>	1/station
Temperature (°C)	Grab <sup>1</sup>	1/station
Total and Fecal Coliform (MPN/100 ml)	Grab <sup>1</sup>	1/station
Ammonia as N (mg/l)	Grab <sup>1</sup>	1/station
Non-dissociated hydroxide (mg/l)	Grab <sup>1</sup>	1/station
Trace metals <sup>2</sup> (mg/l)	Grab <sup>1</sup>	1/station

Notes:

1. Grab samples to be taken within 1 foot of water surface.
2. Measure concentrations of ten metals: arsenic, cadmium, chromium (hexavalent and total), copper, lead, mercury, nickel, zinc, silver, and cyanide.

I, Loretta K. Barsamian, Executive Officer, hereby certify that the following Self-Monitoring Program:

1. Has been developed in accordance with the procedures set forth in the Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Board Order No. 98-005.
2. Has been ordered by the Board on January 21, 1998.

3. May be revised at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.



LORETTA K. BARSAMIAN  
Executive Officer

Attachments:

Part A (August 1993)